

ABSTRACT

The present invention provides a method for measuring semiconductor constituent element content comprising the steps of: obtaining a film thickness of an SiGeC layer formed on a semiconductor substrate by evaluation using spectroscopic ellipsometry; measuring infrared absorption spectrum of the SiGeC layer; and obtaining a C content of the SiGeC layer based on the film thickness and the infrared absorption spectrum of the SiGeC layer. The method may further comprise the steps of: obtaining an apparent Ge content of the SiGeC layer by evaluation using spectroscopic ellipsometry; and obtaining an actual Ge content of the SiGeC layer based on the apparent Ge content and the C content. The constituent element content of the SiGeC layer can be easily and accurately measured according to the above-mentioned method.